

**1. PRODUCT AND COMPANY IDENTIFICATION****Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

**Functional Additives**

**Customer Service Telephone Number:** (800) 331-7654  
(Monday through Friday, 8:00 AM to 5:00 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
(24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
(24 hrs., 7 days a week)

**Product Information**

**Product name:** LUPEROX® PAR70  
**Synonyms:** Not available  
**Molecular formula:** Complex Mixture  
**Chemical family:** Organic peroxide - diacyl peroxides  
**Product use:** initiator/catalyst

**2. HAZARDS IDENTIFICATION****Emergency Overview**

**Color:** yellow  
**Physical state:** liquid  
**Odor:** unpleasant, pungent

**\*Classification of the substance or mixture:**

Flammable liquid., Category 3, H228  
Organic peroxides, Type D, H242  
Inhalation: Acute toxicity, Category 4, H332  
Skin Irritation, Category 2, H315  
Skin sensitisation, Category 1, H317  
Specific target organ toxicity - single exposure, Category 3, H335 + H336  
Aspiration hazard, Category 1, H304  
Acute aquatic toxicity, Category 1, H400  
Chronic aquatic toxicity, Category 2, H411

\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS-Labeling**

Hazard pictograms:



Signal word: **Danger**

**Hazard statements:**

H226 : Flammable liquid and vapour.  
H242 : Heating may cause a fire.  
H304 : May be fatal if swallowed and enters airways.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H332 : Harmful if inhaled.  
H335 + H336 : May cause respiratory irritation, and drowsiness or dizziness.  
H400 : Very toxic to aquatic life.  
H411 : Toxic to aquatic life with long lasting effects.

**Supplemental Hazard Statements:**

Organic peroxide. Hazardous decomposition may occur.

**Precautionary statements:****Prevention:**

P210 : Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220 : Keep/Store away from clothing/ combustible materials.  
P233 : Keep container tightly closed.  
P234 : Keep only in original container.  
P240 : Ground/bond container and receiving equipment.  
P241 : Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 : Use only non-sparking tools.  
P243 : Take precautionary measures against static discharge.  
P261 : Avoid breathing gas/mist/vapours/spray.  
P264 : Wash skin thoroughly after handling.  
P271 : Use only outdoors or in a well-ventilated area.  
P272 : Contaminated work clothing should not be allowed out of the workplace.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves/ eye protection/ face protection.

**Response:**

P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P303 + P361 + P353 : IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 : Call a POISON CENTER or doctor/ physician if you feel unwell.  
P331 : Do NOT induce vomiting.  
P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.  
P362 : Take off contaminated clothing and wash before reuse.  
P370 + P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P391 : Collect spillage.

**Storage:**

P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.  
P405 : Store locked up.  
P410 : Protect from sunlight.  
P411 + P235 : Maximum storage temperature is specified on label and in section 7 of SDS. Keep cool.  
P420 : Store away from other materials.

**Disposal:**

P501 : Dispose of contents/ container to an approved waste disposal plant.

**Supplemental Information:****Potential Health Effects:**

Aspiration hazard if swallowed - can enter lungs and cause damage. Symptoms of aspiration may include increased breathing and heart rate, coughing and related signs of respiratory distress. Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering. If inhaled: Prolonged or repeated exposure may cause: local irritation, nosebleeds, asthma-like symptoms, coughing, shortness of breath, (based on reports of occupational exposure to workers), (severity of effects depends on extent of exposure).

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Benzenecarboperoxolc acid, 1,1-dimethylethyl ester	614-45-9	>= 68 - <= 71 %	H412, H400, H317, H315, H332, H242
Solvent naphtha (petroleum), light arom.	64742-95-6	<= 30 %	H226, H411, H335, H336, H304
Benzene, 1,2,4-trimethyl-	95-63-6	< 10 %	H226, H332, H315, H320, H335, H304, H411
Hydroperoxide, 1,1-dimethylethyl	75-91-2	<= 0.2 %	H242, H226, H302, H311, H330, H314, H318, H317, H341, H411
Benzene, (1-methylethyl)-	98-82-8	<= 0.5 %	H226, H304, H335, H411, H351

\*\*For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

**Inhalation:**

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Skin:**

In case of contact, immediately flush skin with soap and plenty of water. Get medical attention. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Center immediately. If vomiting occurs, have person lean forward. Never give anything by mouth to an unconscious person.

#### 5. FIREFIGHTING MEASURES

**Extinguishing media (suitable):**

Water spray, Foam, Dry chemical

**Extinguishing media (unsuitable):**



Water may be ineffective., Do not use a solid water stream as it may scatter and spread fire.

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

**Further firefighting advice:**

Fight fire with large amounts of water from a safe distance.

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

After a fire, wait until the material has cooled to room temperature before initiating clean-up activities.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and explosion hazards:**

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

Vapours are heavier than air and may spread along floors.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay and then wet down (dampen) the mixture with water. DO NOT USE peat moss. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**Protective equipment:**

Appropriate personal protective equipment is set forth in Section 8.

**7. HANDLING AND STORAGE****Handling****General information on handling:**

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

Do not taste or swallow.

Avoid breathing vapor or mist.

Avoid contact with skin, eyes and clothing.

Keep away from heat, sparks and flames.

No smoking.

Wash thoroughly after handling.

Prevent product contamination.

Keep container tightly closed and away from combustible materials.

Use only with adequate ventilation.

Keep only in the original container.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Container hazardous when empty.

Follow label warnings even after container is emptied.

RESIDUAL VAPORS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Do not reuse container as it may retain hazardous product residue.

Improper disposal or reuse of this container may be dangerous and/or illegal.

Emptied container retains vapor and product residue.

**Storage****General information on storage conditions:**

Keep away from direct sunlight. Keep container closed when not in use. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Outside or detached storage is preferred. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and materials to avoid. Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

**Storage stability – Remarks:**

Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content.

**Storage incompatibility – General:**

Store away from combustibles and materials to avoid.

Store separate from:

Strong acids

Strong bases

Strong oxidizing agents

Reducing agents

Amines

Accelerators

Friedel - Crafts reaction catalyst

Brass

Copper

Iron

For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.

**Temperature tolerance – Do not store above:**  
100 °F (38 °C)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Airborne Exposure Guidelines:

#### **Benzene, 1,2,4-trimethyl- (95-63-6)**

##### US. ACGIH Threshold Limit Values

Time weighted average	25 ppm
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#### **Benzene, (1-methylethyl)- (98-82-8)**

##### US. ACGIH Threshold Limit Values

Time weighted average	50 ppm
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##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL:	50 ppm (245 mg/m3)
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Skin designation

**Remarks:** Can be absorbed through the skin.

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

### **Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce



exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Respiratory protection:**

Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Skin protection:**

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye protection:**

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	yellow
<b>Physical state:</b>	liquid
<b>Odor:</b>	unpleasant, pungent
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	126 °F (52 °C) (Method: closed cup)
<b>Auto-ignition temperature:</b>	No data available
<b>Lower flammable limit (LFL):</b>	No data available
<b>Upper flammable limit (UFL):</b>	No data available
<b>pH:</b>	No data available
<b>Density:</b>	No data available
<b>Vapor pressure:</b>	No data available



<b>Vapor density:</b>	No data available
<b>Boiling point/boiling range:</b>	Decomposes before boiling. Rate of decomposition increases with rising temperature.
<b>Melting point/range:</b>	No data available
<b>Freezing point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	insoluble
<b>Viscosity, dynamic:</b>	No data available
<b>Oil/water partition coefficient:</b>	No data available
<b>Self-Accelerating Decomposition Temperature (SADT):</b>	140 °F (60 °C) (Method: Heat Accumulation Storage Test) Expressed as pure peroxide
<b>Thermal decomposition</b>	No data available
<b>Active oxygen content:</b>	5.77 %
<b>Flammability:</b>	See GHS Classification in Section 2

## 10. STABILITY AND REACTIVITY

### Stability:

This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this SDS for specified conditions.

### Hazardous reactions:

Hazardous polymerization does not occur.

### Materials to avoid:

Strong acids  
Strong bases  
Strong oxidizing agents  
Reducing agents  
Accelerators  
Friedel - Crafts reaction catalyst  
transition metal salts  
metal ions  
Brass  
Copper  
Iron

For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.

### Conditions / hazards to avoid:

See HANDLING AND STORAGE section of this SDS for specified conditions. SADT - Self Accelerating

**Decomposition Temperature.** Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generate a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

**Hazardous decomposition products:**

Temperatures at or above SADT can result in the release of hazardous decomposition products which are flammable and may autoignite.

Thermal decomposition giving flammable and toxic products:

Carbon oxides

Hazardous organic compounds

<b>11. TOXICOLOGICAL INFORMATION</b>
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Data on this material and/or its components are summarized below.

**Data for LUPEROX® PAR70**

**Acute toxicity**

**Oral:**

Acute toxicity estimate 4,390 mg/kg.

**Dermal:**

Acute toxicity estimate 4,650 mg/kg.

**Inhalation:**

4 h Acute toxicity estimate 14.41 mg/l. (vapour)

**Data for Benzenecarboperoxoic acid, 1,1-dimethylethyl ester (614-45-9)**

**Acute toxicity**

**Skin Irritation:**

Causes skin irritation. (rabbit) Irritation Index: 3.7/8.0.

**Eye Irritation:**

Causes mild eye irritation. (rabbit) Irritation Index: 7/110.

**Skin Sensitization:**

May cause an allergic skin reaction. LLNA: Local Lymph Node Assay. (mouse) Skin allergy was observed.

Not a sensitizer. Buehler Test. (guinea pig) No skin allergy was observed

**Repeated dose toxicity**

Repeated oral administration to rat and mouse / Local irritation of the stomach

Subchronic oral administration to rat / Local irritation of the stomach

**Genotoxicity****Assessment in Vitro:**

Genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity****Assessment In Vivo:**

No genetic changes were observed in a laboratory test using: mice

**Developmental toxicity**

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No birth defects were observed. (delays in development)

**Reproductive effects**

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No toxicity to reproduction.

**Data for Solvent naphtha (petroleum), light arom. (64742-95-6)****Acute toxicity****Specific target organ toxicity - single exposure:**

May cause respiratory irritation.

May cause drowsiness or dizziness.

**Skin Irritation:**

Causes mild skin irritation. (Rabbit) Irritation Index: 1.9 / 8. (4 h)

**Eye Irritation:**

Causes mild eye irritation. (rabbit)

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed

**Repeated dose toxicity**

Subchronic oral administration to rat / No adverse systemic effects reported. (data for a similar material)

Subchronic Inhalation administration to rat / signs: changes in body weight

**Genotoxicity****Assessment In Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity****Assessment In Vivo:**

No genetic changes were observed in laboratory tests using: rats

**Developmental toxicity**

Exposure during pregnancy. Inhalation (mouse) / No birth defects were observed. (delays in development, at

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doses that produce effects in mothers)

**Reproductive effects**

Multiple generation reproduction test. inhalation (rat) / No toxicity to reproduction

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Data for Benzene, 1,2,4-trimethyl- (95-63-6)****Acute toxicity****Specific target organ toxicity - single exposure:**

May cause respiratory irritation.

**Skin Irritation:**

Causes skin irritation. (Rabbit) Irritation Index: 2.3. (4 h) (data for a similar material)

**Eye Irritation:**

Causes eye irritation. (Rabbit) (data for a similar material)

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed (similar material)

**Repeated dose toxicity**

Subchronic inhalation administration to Rat / affected organ(s): Haematopoietic system, Lungs / signs: changes in blood cell counts, irritation / No significant impairment of function.

Repeated oral administration to Rat / affected organ(s): kidney, liver / signs: increased organ weight / No significant impairment of function.

Chronic Inhalation administration to Rat / No adverse effects reported.

**Genotoxicity****Assessment In Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity****Assessment In Vivo:**

No genetic changes were observed in laboratory tests using: rats, (data for similar material)

**Developmental toxicity**

Exposure during pregnancy. Inhalation (Rat) / No birth defects were observed. (delays in development, at doses that produce effects in mothers)

**Reproductive effects**

Multiple generation reproduction test. Inhalation (Rat) / No toxicity to reproduction / (data for a similar material)

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Human experience**

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**General:**

Central nervous system effects: headache, nausea, dizziness, drowsiness, loss of consciousness.

**Human experience****Inhalation:**

Respiratory system: irritation, nosebleeds, asthma-like symptoms. (based on reports of occupational exposure to workers) (severity of effects depends on extent of exposure)

Blood: excessive bleeding, anemia. (based on reports of occupational exposure to workers) Exposure to other materials makes the association questionable.

**Data for 1-Methylethylbenzene (cumene) (98-82-8)****Carcinogenicity**

Chronic inhalation administration to rat and mouse / affected organ(s): lung, upper respiratory tract, kidney / Increase in tumor incidence was reported.

Classified by the International Agency for Research on Cancer as: Group 2B: Possibly carcinogenic to humans. Listed by the National Toxicology Program as: Reasonably anticipated to be a human carcinogen.

**Genotoxicity****Assessment In Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity****Assessment In Vivo:**

Generally, no genetic changes were observed in laboratory studies using: rats, mice

**Data for Tert-Butyl hydroperoxide (75-91-2)****Acute toxicity****Skin Irritation:**

Causes severe skin burns. (rabbit) (24 h) (70 %) (occluded exposure, aqueous solution)

Causes mild skin irritation. (guinea pig) (6 h) (5 %) (aqueous solution)

**Eye Irritation:**

Causes serious eye damage. (rabbit) (70 %) (aqueous solution)

**Skin Sensitization:**

May cause an allergic skin reaction. Guinea pig maximization test. (guinea pig) Skin allergy was observed. (Strong sensitizer)

**Repeated dose toxicity**

Repeated inhalation administration to rat / affected organ(s): nose / signs: changes in body weight, irritation / (vapor)

Repeated oral administration to rat / affected organ(s): stomach / signs: severe irritation

**Genotoxicity****Assessment in Vitro:**

Genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity****Assessment In Vivo:**

Both positive and negative responses for genetic changes were observed in laboratory tests using: rats

No genetic changes were observed in a laboratory test using: mice

**Developmental toxicity**

Exposure during pregnancy. oral (rat) / No birth defects were observed. (at doses that produce effects in mothers)

**Reproductive effects**

Reproductive/Developmental Effects Screening Assay. oral (rat) / No toxicity to reproduction.

**12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

Data on this material and/or its components are summarized below.

**Data for Benzenecarboxylic acid, 1,1-dimethylethyl ester (614-45-9)****Biodegradation:**

Readily biodegradable (28 d) biodegradation 72 %

**Octanol Water Partition Coefficient:**

log Pow = 3

**Data for Solvent naphtha (petroleum), light arom. (64742-95-6)****Biodegradation:**

Readily biodegradable. (28 d) biodegradation 78 %

**Octanol Water Partition Coefficient:**

log Pow = 2.1 - 6 (calculated) (Potential to bioaccumulate)

**Data for Benzene, 1,2,4-trimethyl- (95-63-8)****Biodegradation:**

Readily biodegradable. (1 d) biodegradation 100 % / in presence of adapted microorganisms

Readily biodegradable. (13 d) biodegradation 96 %

**Octanol Water Partition Coefficient:**

log Pow = 3.63 (measured)

**Ecotoxicology**

Data on this material and/or its components are summarized below.

**Data for Benzenecarboxylic acid, 1,1-dimethylethyl ester (614-45-9)****Aquatic toxicity data:**

Toxic. Danio rerio (zebra fish) 96 h LC50 = 1.6 mg/l

Toxic. Poecilia reticulata (guppy) 96 h LC50 = 8.6 mg/l

**Aquatic invertebrates:**

Harmful. *Daphnia magna* (Water flea) 48 h EC50 = 11 mg/l

**Algae:**

Very toxic. *Pseudokirchneriella subcapitata* (green algae) 72 h ErC50 = 0.8 mg/l

Toxic. Algae 72 h EC50 = 1.3 mg/l

**Microorganisms:**

Respiration Inhibition / Activated sludge 0.5 h EC50 = 43 mg/l

**Chronic toxicity to aquatic invertebrates:**

*Daphnia magna* (Water flea) 21 d EC10 (reproduction) = 0.49 mg/l

**Chronic toxicity to aquatic plants:**

*Pseudokirchneriella subcapitata* (green algae) 72 d NOEC (growth rate) = 0.72 mg/l

**Data for Solvent naphtha (petroleum), light arom. (64742-95-6)**

Information given is based on data obtained from similar substances.

**Aquatic toxicity data:**

Toxic. *Oncorhynchus mykiss* (rainbow trout) 96 h LL50 = 9.22 mg/l (Water accommodated fraction was tested.)

**Aquatic invertebrates:**

Toxic. *Daphnia magna* (Water flea) 48 h EL50 = 3.2 mg/l (Water accommodated fraction was tested.)

**Algae:**

Toxic. *Pseudokirchneriella subcapitata* (green algae) 72 h EC50 = 2.6 mg/l (Water accommodated fraction was tested.)

**Microorganisms:**

Respiration Inhibition / Activated sludge 10 min EC50 > 99 mg/l

**Data for Benzene, 1,2,4-trimethyl- (95-63-8)****Aquatic toxicity data:**

Toxic. *Pimephales promelas* (fathead minnow) 96 h LC50 = 7.72 mg/l

Harmful. *Carassius auratus* (goldfish) 96 h LC50 = 12.5 mg/l

Toxic. *Oncorhynchus mykiss* (rainbow trout) 24 h LC50 = 9.22 mg/l

**Aquatic invertebrates:**

Toxic. *Crangon crangon* (shrimp) 96 h LC50 = 5.4 mg/l

Toxic. *Daphnia magna* (Water flea) 48 h EC50 = 6.14 mg/l

Toxic. *Mysidopsis bahia* 96 h LC50 = 2 mg/l

**Terrestrial non-mammal:**

*Colinus virginianus* (Bobwhite quail) 5 d LD50 > 2,250 mg/kg

**13. DISPOSAL CONSIDERATIONS****Waste disposal:**

Dilution followed by incineration is the preferred method. Dilution ratio of 10:1 in a clean, compatible, combustible solvent (i.e., Fuel Oil #2, mineral oil) will reduce reactivity hazard during incineration and transportation. Dispose of

in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

<b>14. TRANSPORT INFORMATION</b>
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**US Department of Transportation (DOT)**

UN Number	: 3105
Proper shipping name	: Organic peroxide type D, liquid
Technical name	: (Tert-Butyl peroxybenzoate, >52-77%)
Class	: 5.2
Packaging group	: II
Marine pollutant	: yes
Reportable quantity	: 5000 lbs (Cumene) 100 lbs (Xylene)

**International Maritime Dangerous Goods Code (IMDG)**

UN Number	: 3105
Proper shipping name	: ORGANIC PEROXIDE TYPE D, LIQUID
Technical name	: (Tert-BUTYL PEROXYBENZOATE, >52-77%)
Class	: 5.2
Marine pollutant	: yes
Flash point	: 126 °F (52 °C)

<b>15. REGULATORY INFORMATION</b>
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**Chemical Inventory Status**

EU. EINECS	EINECS	Conforms to
United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to



Korea, Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

**United States – Federal Regulations**
**SARA Title III – Section 302 Extremely Hazardous Chemicals:**

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

**SARA Title III - Section 311/312 Hazard Categories:**

Fire Hazard, Reactivity Hazard, Acute Health Hazard

**SARA Title III – Section 313 Toxic Chemicals:**

The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>De minimis concentration</u>	<u>Reportable threshold:</u>
Benzene, 1,2,4-trimethyl-	95-63-6	1.0 %	25000 lbs (Manufacturing and processing) 10000 lbs (Otherwise used (non-manufacturing/processing))

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
Benzene, (1-methylethyl)-	98-82-8	5000 lbs
Peroxide, bis(1,1-dimethylethyl)	110-05-4	100 lbs
Benzene, dimethyl-	1330-20-7	100 lbs
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester	614-45-9	100 lbs
Hydroperoxide, 1,1-dimethylethyl	75-91-2	100 lbs

**United States – State Regulations**
**New Jersey Right to Know**

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester	614-45-9
Benzene, 1,2,4-trimethyl-	95-63-6

**New Jersey Right to Know – Special Health Hazard Substance(s)**

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester	614-45-9

**Pennsylvania Right to Know**

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzenecarboperoxoic acid, 1,1-dimethylethyl ester	614-45-9

Solvent naphtha (petroleum), light arom.	64742-95-6
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Benzene, 1,2,4-trimethyl-	95-63-6
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**Pennsylvania Right to Know – Environmentally Hazardous Substance(s)**

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene, 1,2,4-trimethyl-	95-63-6

**California Prop. 65**

**WARNING!** This product contains a chemical known to the State of California to cause cancer.

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene, (1-methylethyl)-	98-82-8

<b>16. OTHER INFORMATION</b>
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**Full text of H-Statements referred to under sections 2 and 3.**

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H320	Causes eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H335 +	May cause respiratory irritation, and drowsiness or dizziness.
H336	
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Miscellaneous:**

Other information: Refer to National Fire Protection Association (NFPA) Codes 30, 70, 77, and 497 and OSHA 29 CFR 1910.106, for safe handling.

**Latest Revision(s):**

Reference number: 000000034113  
Date of Revision: 10/18/2015  
Date Printed: 11/29/2016

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*Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.*

*It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies). It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.*